

**Amendments to the Specification:**

*Please amend the title of the invention and the paragraphs starting on page 9, lines 22 and 28 as shown below:*

**Optical Sorting Apparatus and Methods**

In FIG. 3 there is illustrated an embodiment of the annular flow concept and wherein a particulate product stream 25 is concentrated by a concentrator 26 to feed product onto the apex of a conical dispersion plate 27. The dispersion plate 27 delivers the product evenly in an annular mono-layer to a collimator 64 comprising inner 30 and outer 31 product guides which are nested, coaxial, opposed and frustoconical, to produce, an annular, vertically directed product flow 32.

Located within the annular product flow 32 is a detector assembly comprising an upper detector and optics box 33 beneath which is mounted for rotation a beam splitting mirror 34 driven by a motor 35 and scanning product in the annular detection area 36. The product passing through the detection area 36 is bombarded with a source S and the reflected or transmitted intensity signal 37 is then measured by a detector in the detector and optics box 33.